

Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-18 (Canceled).

19. (Currently amended) An expandable router for routing a signal from at least one input to one or more outputs, comprising:

at least X routing components, where X is an integer greater than two, each of the X routing components having first and second routing engines, each routing engine having M inputs and N outputs where M and N are integers both greater than one, each routing engine routing a signal from one of the M inputs to one or more of the N outputs.

each first routing engine of each of the X routing components having its inputs coupled by first links in a first fully connected topology to inputs of others of the first routing engines of the X routing components;

each second routing engine of each of the X routing components having its inputs coupled by second links in a second fully connected topology to inputs of others of the second routing engines of the X routing components, wherein said second links are different from said first links;

wherein the coupling of the inputs of the inputs of the routing engines affords the routing engines with a common set of XM inputs, with each of the first and second routing engines in each routing component serving as a backup to the other of the routing engines in the same routing component.

20. (Previously presented) The router according to claim 19 wherein the links between inputs of each routing engine of a routing component and inputs of a routing engine of another routing component are bi-directional.

21. (Previously presented) The router according to claim 19 wherein the links between inputs of each routing engine of a routing component and inputs of a routing engine of another routing component comprise pairs of unidirectional links.

22. (Previously presented) The router according to claim 19 wherein each routing component further comprises first and second expansion modules.

23. (Previously presented) The router according to claim 22 wherein each expansion module comprises first and second memories each capable of storing data received at the expansion module.

24. (Previously presented) The method according to claim 23 wherein each expansion module further includes a controller for transferring data between the first and second memories.